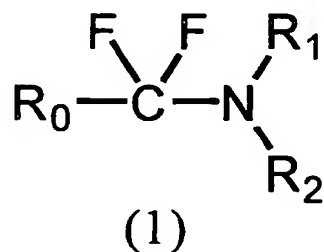


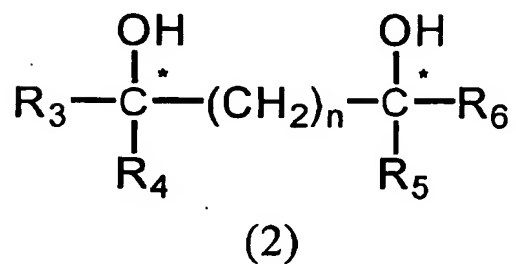
# Claims

[1] A process for producing an optically active fluoro compound represented by formula (3) characterized in that the process comprises reacting a fluoroamine represented by formula (1) with an optically active diol represented by formula (2):

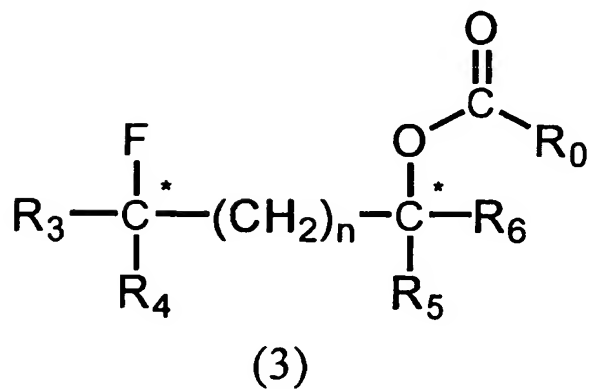
[F1]



[F2]



[F3]



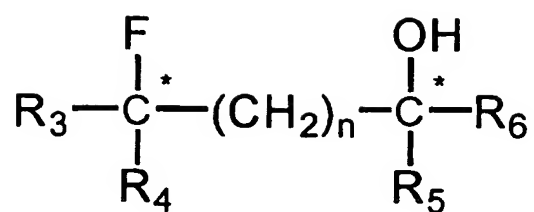
(wherein each of  $R_0$ ,  $R_1$  and  $R_2$ , which may be identical to or different from one another, represents a hydrogen atom, or an alkyl group or aryl group which may have a substituent; and two or more groups of  $R_0$ ,  $R_1$  and  $R_2$  may be linked to form a ring structure; each of  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  represents a hydrogen atom, or an alkyl group or aryl group which may have a substituent;  $R_3$  and  $R_4$  are different from each other;  $R_5$  and  $R_6$  are different from each other; the carbon atom to which  $R_3$  and  $R_4$  are bound is an asymmetric carbon atom; the carbon atom to which  $R_4$  and  $R_5$  are bound is an asymmetric carbon atom; and  $n$  is an integer of 0 to 3).

[2] A process for producing an optically active fluoro compound as described in claim 1, wherein  $R_0$  of the fluoroamine represented by formula (1) is a 3-methylphenyl group or a 2-methoxyphenyl group, and each of  $R_1$  and  $R_2$  of the fluoroamine is an ethyl group.

[3] A process for producing an optically active fluoro compound as described in claim 1 or 2, wherein the reaction is carried out thermally or under irradiation with a microwave and/or an electromagnetic wave having a wavelength in the vicinity of a microwave region.

[4] A process for producing an optically active fluoroalcohol represented by formula (4) characterized in that the process comprises hydrolyzing an optically active fluoro compound which has been produced through a process as recited in any of claims 1 to 3:

[F4]



(4)

(wherein R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> represents a hydrogen atom, or an alkyl group or aryl group which may have a substituent; R<sub>3</sub> and R<sub>4</sub> are different from each other; R<sub>5</sub> and R<sub>6</sub> are different from each other; the carbon atom to which R<sub>3</sub> and R<sub>4</sub> are bound is an asymmetric carbon atom; the carbon atom to which R<sub>5</sub> and R<sub>6</sub> are bound is an asymmetric carbon atom; and n is an integer of 0 to 3).